



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,457	01/09/2001	George E. Zahr	QP5031 US NA	8127

23906 7590 10/18/2002

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
----------	--------------

1711

10

DATE MAILED: 10/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T.P

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 01/09/01 ; 08/09/01 ; 04/05/02 ; 10/01/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-18 is/are pending in the application.
- Of the above claim(s) 1-11, 14, 17 and 18 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 12, 13, 15 and 16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2 and 3
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group II in Paper No. 6 is acknowledged. Because Applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Applicants have elected the product and request that if the product claims are found allowable that the withdrawn process claims which may depend from or otherwise include all the limitations of the allowable product claims be rejoined.
2. Applicant's election of R_1 polyamide repeating units, R_2 bis-N-acyl bis-caprolactam compounds and R_3 hydrogen and hydroxyl groups in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. Claims 1-11, 14, 17 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group or species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6 and 9.

Claim Rejections - 35 USC § 112

4. Claims 12, 13, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, the term "functional" is indefinite because it is unclear if or how such further limits the diamine and triamine units.

In claim 12, the term "functionalized" is indefinite because it is unclear if or how such further limits the bis-N-acyl bislactam moieties.

In claim 12, the polyamide-repeating unit R_1 reads on and does not distinguish over the polyamide chain extender moiety R_2 .

Claim 12 is indefinite in that it is unclear as to whether or not the polyamide chain extender moiety R_2 is required. This is because the terminology "wherein at least one of...." indicates that the bis-N-acyl bislactam moiety is optional.

In claim 13, there is no express antecedent basis for "the members of the polyamide repeating units (R_1)".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12, 13, 15 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese 61-171732.

The reference discloses melt-spun filaments comprising polyamides having a high degree of polymerization derived by reacting a bislactam compound with a polyamide such as nylon 6

Art Unit: 1711

and nylon 66. In the examples, the reference specifically teaches filaments derived from various biscaprolactams and nylon 6. It is reasonably believed that since the filaments of the reference are produced from essentially the same materials and process as used by Applicants, that the former would inherently contain the same chemical structure defining the presently claimed polymer. The onus is shifted to Applicants to establish that the products of the prior art do not have the same chemical structure as that of the present claims.

Claim Rejections - 35 USC § 103

7. Claims 12, 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/47940.

The invention relates to a high molecular weight polyamide prepared by melt-mixing a polyamide having a lower molecular weight with a carbonyl bislactam. The examples provide various examples of polyamide compositions, which essentially meet the requirements of the present claims in terms of the components used. It is reasonably believed that the polymer product resulting from the reaction of the polyamide and bislactam compound of the reference would contain the same chemical structure defining the presently claimed polymer.

The reference differs from the presently claimed only in that it does not expressly exemplify a filament article derived from the polyamide product. In this regard, attention is directed to page 12 of the reference which states that the polyamide product can be processed by melt spinning to obtain fibers. Accordingly, it would have been obvious to one having ordinary skill in the art to have formulated fibers from the polyamide product of the reference with the reasonable expectation of success.

Application/Control Number: 09/757,457

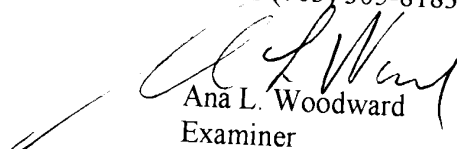
Art Unit: 1711

Page 5

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (703) 308-2401. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8183.



Ana L. Woodward
Examiner
Art Unit 1711

AW
October 17, 2002